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THE PUMA IN NEW BRUNSWICK, CANADA: A PRELIMINARY SEARCH

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INTRODUCTION

Continued reports of pumas (*Puma concolor*) in northeastern North America led the American Ecological Research Institute (AERIE) to propose a winter-time investigation into the occurrence of the species in New Brunswick, Canada. Friends of the Eastern Panther (FOTEP), in cooperation with the Fundy Wilderness Coalition (FWC), allotted the minimum funding necessary to undertake this field effort. A team comprised of the two authors, plus Arizona puma biologist Harley G. Shaw, and two technicians, Craig Govan and Steve Gross, was organized, and fieldwork was conducted in March, 1992.

NARRATIVE DESCRIPTION

The five-person FOTEP field team arrived in New Brunswick on March 10, 1992. Fieldwork to locate evidence of pumas, known locally as panthers, began that evening and continued through March 26. Searches were made in the southern part of the province within an area of 500 miles^2 (1,295 km^2) extending from the town of Belleisle Brook south to West Quaco, and northeast along the Bay of Fundy coast through Fundy National Park to Waterside (Fig. 1).

Additional reconnaissance was made over 3,100 miles^2 (8,029 km^2), which, when coupled with the primary study area, takes in nearly the entire southern one-fifth of New Brunswick. Boundaries of this roughly rectangular area are delineated by St. George, Highway 770, and Fredericton Junction on the west, and Moncton and Riverside-Albert on the east (see Fig. 1). This larger area will henceforth be referred to as the study area.

Southern New Brunswick wildlands are primarily second or third growth boreal and northern mixed hardwood forest divided by extensive agricultural lands, large clearcuts, and monoculture plantations of jack pine and black spruce. Hunting camps, snowmobile trails, logging roads, settlements, villages, and towns regularly invade the forested landscape.

Several major rivers, including the Lepreau, Nerepis, St. John, Kennebecasis, Millstream, Big Salmon, and Point Wolfe, bisect the study area.

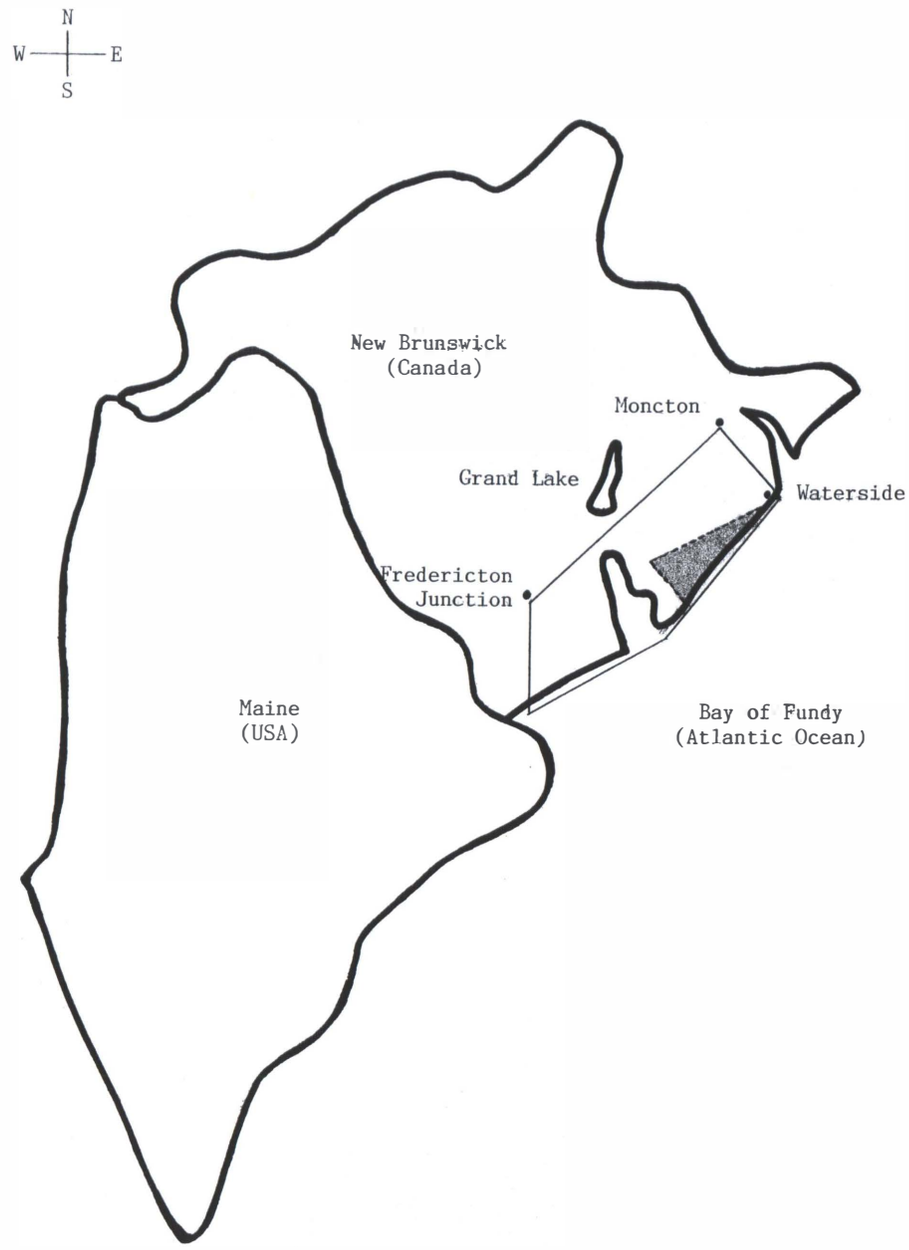

FIG. 1.—Southern New Brunswick study area of the 1992 FOTEP puma survey. Primary study area shaded. (1 cm = 25 miles/40 km.)

Their drainages are separated by a system of long, parallel ridges running to the Bay of Fundy. Elevations across the study area range from sea level to 1,300 feet (400 m).

Four-wheel drive vehicles and snowmobiles were the primary modes of travel during the survey. These vehicles were driven at slow speeds (5–8 mph/8–12 kph) along roads and trails while team members scanned for tracks, trails, scat, scrapes (scratches), or other evidence of puma presence. Searchers snowshoed or hiked whenever required by roughness or inaccessibility of terrain.

Typically, the team was divided into one to three crews, each consisting of one to three team members, with each crew afield from early morning to early evening in areas considered to encompass the best potential puma habitats. Our intent was to search known or suspected white-tailed deer (*Odocoileus virginianus*) wintering habitat.

Sign suspected to be that of pumas was evaluated by team members experienced with tracking and studying the species in the West prior to a final determination of its origin being made. When necessary, the surrounding area (0–3,300 feet/0–1,000 m) was thoroughly investigated. Reports of pumas or their sign made by persons unaffiliated with the study were investigated as soon as possible following team notification.

A light aircraft (Cessna 172) was used on one occasion to aid in the delineation of deer winter range, possible puma travel corridors according to terrain, and available cover within the primary study area. Data from this and all other field efforts were recorded on standardized forms retained by FOTEP.

Results

Sixteen days were spent afield and 2,200 miles (3,542 km) traveled while reconnoitering habitat and searching for pumas and/or their sign across an area of 3,600 miles^2 (9,324 km^2) in southern New Brunswick. Daily tracking conditions were as follows: six excellent (high probability of seeing tracks on at least 75 percent of route), two good (high probability on 50–74 percent of route), one fair (high probability on 25–49 percent of route), one poor (high probability on 0–24 percent of route), four variable, and two not recorded.

Three reports of pumas were investigated, two involving the sighting of single animals, and one involving the finding of tracks only. Evidence indicated that a coyote (*Canis latrans*), domestic dog (*Canis familiaris*), and domestic dog, respectively, accounted for the reports.

While the FOTEP field team found no evidence to indicate the presence of pumas in New Brunswick, the status of the animal necessarily remains a mystery. Pumas are solitary, secretive, highly mobile animals that, even where common, exist in populations of relatively low density. If, in fact, pumas do occur in the Northeast, it is likely their numbers are small. Documenting their presence and understanding even their most basic ecology will take a concerted effort far beyond the scope of a mere two and one-half week reconnaissance.

At the heart of the matter are questions of ecosystem suitability and integrity. The following quotes, taken from the team's daily data forms, exemplify this: "Just when you think you're getting into some good puma habitat, you come upon yet another house or village" (12 March). "Islands of halfway decent-looking habitat surrounded by either backwoods cabins, agricultural areas, or the Bay of Fundy" (12 March). "Lots of bland country; this area more populated than areas previously surveyed. Clearcuts" (22 March). "The prey base, cover, and topographical relief (Lake Utopia area) all suggest excellent puma habitat, although my sense of the area as a whole is that it is not big enough to support the animal" (23 March).

Much of the Acadian and boreal forest region we investigated could not support a viable, resident population of pumas. Essentially, the area offers little, and then only in ephemeral, seasonal fashion, of what pumas require. For example, the occasional winter-time concentrations of white-tailed deer that occur within the study area are insufficient to support pumas on a long-term basis, although transient and/or feral escaped or released captives (FERCs) could certainly drift through at any time of the year.

Despite these limitations, there is one area within the region that may offer promise as potential puma habitat. This area extends from the Fundy hills southwest of Riverside-Albert, including Fundy National Park and the rugged coastal wildlands to the Big Salmon River, northward through the Waterford area uplands to the Petticodiac deer winter range paralleling the TransCanada Highway Two (see Fig. 1). This zone may well represent a more diversified, more important continuum of habitat for any transient puma able to reach it. Again, however, it would be difficult for a population of pumas within this area to thrive.

Our conclusions are as follows:

1). No sign of pumas was observed during a two and one-half week reconnaissance of southern New Brunswick in March, 1992.

2). The status of the puma in New Brunswick remains uncertain.[1]

3). Habitat within the southern New Brunswick study area is deteriorating rapidly within a context of industrial, residential, and recreational trends.

4). The study area probably could not independently support a resident population of pumas at this time.

5). In some instances, seemingly reliable observers mistake coyotes and dogs, and probably fishers (*Martes pennanti*), black bears (*Ursus ameri-*

[1] In March, 1993, the Minister of Natural Resources of New Brunswick announced that, based on new field evidence, pumas were officially recognized as occurring in that Canadian province. The new evidence originated from outside of the authors' study area—Editor.

canus), melanistic red foxes (*Vulpes vulpes*), and perhaps melanistic bobcats (*Lynx rufus*) as well, for pumas.

6). The legendary status the puma enjoys in the Northeast—perhaps due to its rarity and elusive nature—contributes greatly to what is apparently a sociological phenomenon of puma sightings.

Our recommendations are as follows:

1). Further active research is needed. Passive studies—the collection of puma reports, for instance—are in themselves no longer adequate. Priority at this time should be given to searching those areas of Nova Scotia, Quebec, and Ontario where ungulate winter range overlaps rugged and/or sparsely settled terrain.

2). In New Brunswick, a cooperative program (federal, provincial, and private) of systematic province-wide track counts should be initiated, not only to further investigate the status of puma, but, importantly, to monitor changes in habitat quality and shed light on the population trends of other sensitive wildlife as well.

Future Plans

A cooperative $400,000 multi-year proposal for intensive puma research in New Brunswick has been submitted to the Canadian government.[2] Also, planning is underway for an eastern puma conference, co-sponsored by AERIE, FOTEP, the Eastern Puma Research Network, and the International Society of Cryptozoology.[3]

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[2] Since this Field Report was submitted for publication, the proposal has been turned down—Editor.

[3] Since this Field Report was submitted for publication, the Eastern Puma Conference was held at Gannon University, Erie, Pennsylvania, on June 3–5, 1994. The conference proceedings were published in 1996—Editor.

THE
EASTERN COUGAR
CONFERENCE,
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